

Assignment 7-4 Integer Addition 3

The problem is to add two integers a and b . ($0 \leq a, b < 10^{250}$)

Input

The input consists of t ($30 \leq t \leq 40$) test cases. The first line of the input contains only positive integer t . Then t test cases follow. Each test case consists of two lines which give the two integers a and b ($0 \leq a, b < 10^{250}$).

Output

For each test case, you are to output a single line containing the sum of a and b .

Sample Input

```
3
10
3
4
0
0
8
```

Sample Output

```
13
4
8
```

Part of the program

You are required to write the function `addition` to complete the following program which solves this problem. In your program, you cannot declare global variables or static arrays

```
#include <iostream>
#include <cstring>
using namespace::std;

struct HugeInt
{
    int size;
    int *digit;
};

// sum = addend + adder
void addition( HugeInt addend, HugeInt adder, HugeInt &sum );
```

```

int main()
{
    char strA[ 251 ], strB[ 251 ];
    int T;
    cin >> T;
    for( int t = 0; t < T; ++t )
    {
        cin >> strA >> strB;

        HugeInt addend;
        addend.size = strlen( strA );
        addend.digit = new int[ addend.size ];
        for( int i = 0; i < addend.size; ++i )
            addend.digit[ i ] = strA[ addend.size - 1 - i ] - '0';

        HugeInt adder;
        adder.size = strlen( strB );
        adder.digit = new int[ adder.size ];
        for( int i = 0; i < adder.size; ++i )
            adder.digit[ i ] = strB[ adder.size - 1 - i ] - '0';

        HugeInt sum;
        addition( addend, adder, sum );

        for( int i = sum.size - 1; i >= 0; i-- )
            cout << sum.digit[ i ];
        cout << endl;

        delete[] addend.digit;
        delete[] adder.digit;
        delete[] sum.digit;
    }
}

// sum = addend + adder
void addition( HugeInt addend, HugeInt adder, HugeInt &sum )
{

```